

Patent Claims

1. Connecting device for a pipe or the like fluid conduit, with a coupling body (1) and a clamping collar (2) which can be set into a substantially cylindrical recess (3) of the coupling body (1) in an axially inner starting position and into which, for example after such setting into the recess (3), one end of the pipe (4) to be connected can be slid, for example until its front-side abuts a stop (5) of the coupling body (1), the clamping collar (2) comprising at its inner end at least one radially displaceable arresting tongue (6), which, when the pipe (4), and therewith the clamping collar (2), is slid back in the direction of the recess inlet (7), for example under the pressure building up in the pipe coupling, up into an axially outer arresting position, can be pressed radially inwardly and with its inner side into engagement with the outer wall surface (11) of the pipe (4), through the cooperation of the outer side (8) of the arresting tongue (6) with a first slope (9), radially slanting in the direction of the recess inlet (7), of the inner wall surface (10) of the coupling body (1), **characterized in that** the coupling body (1) at the front side of the clamping collar (2) has a second slope (12) radially slanting toward the recess inlet (7) which, when the clamping collar (2) is slid in from the axially outer arresting position into the axially inner starting position cooperates with the front-side end (13) of the at least one arresting tongue (6) as a ramp-up slope in order to spread it radially outwardly.
2. Connecting device as claimed in claim 1, **characterized in that** the front-side end (13) of the at least one arresting tongue (6) has an identically directed tongue slope (17) cooperating with the second slope (12) of the coupling body (1).

3. Connecting device as claimed in claim 1 or 2, **characterized in that** the clamping collar (2) adjacent to the recess inlet (7) of the coupling body (1) is sealed (14, 15) against the inner wall surface (10) of the coupling body (1) and/or the outer wall surface (11) of the pipe (4).
4. Connecting device as claimed in one of claims 1 to 3, **characterized in that** the at least one arresting tongue (6) is provided with a sharp edge (16) on its side facing toward the outer wall surface (11) of the pipe (4).
5. Connecting device as claimed in one of the preceding claims, **characterized in that** the first slope (9) is formed by an annular bead (21) encircling the inner wall surface (10) of the coupling body (1).
6. Connecting device as claimed in one of the preceding claims, **characterized in that** two or more arresting tongues (6) are uniformly distributed over the circumference of the clamping collar (2).
7. Connecting device as claimed in one of the preceding claims, **characterized in that** the clamping collar (2) is equipped at its outer end with a circumferential flange (18).
8. Connecting device as claimed in the preamble of claim 1 or in one of claims 1 to 7, **characterized in that** the clamping collar (2) is divided into an axially inner function section (2A) with the at least one arresting tongue (6), which, when it is slid in from the axially outer arresting position into the axially inner starting position, is spread radially outwardly, and into an axially outer actuation section (2B), and that between the front sides facing one another of function section (2A) and actuation

section (2B) a seal, implemented for example as an O-ring seal (25), is disposed, which forms a seal radially outwardly against the inner wall surface (10) of the coupling body (1) and radially inwardly against the outer wall surface (11) of the pipe (4).

9. Connecting device as claimed in claim 8, **characterized in that** the actuation section (2B) at its axially inner end comprises at least one radially displaceable latching tongue (26), which, with a radially outwardly directed projection (28), engages into an inwardly open groove, implemented for example as a circumferential groove (29), in the inner wall surface (10) of the coupling body (1).

10. Connecting device as claimed in claim 9, **characterized in that** the circumferential groove (29) is of such width that it permits the axial displacement of the actuation section (2B) to an extent such that the function section (2A) can be displaced back and forth between its axially inner starting position and its axially outer arresting position.

11. Connecting device as claimed in one of claims 8 to 10, **characterized in that** two or more latching tongues (26) are uniformly distributed over the circumference of the actuation section (2B).

12. Connecting device as claimed in one of claims 8 to 11, **characterized in that** the function section (2A) is comprised of metal and the actuation section (2B) of an elastically compliant material, such as a synthetic material.

13. Connecting device as claimed in one of claims 8 to 12, **characterized in that** the circumferential flange (18) is provided on the actuation section (2B).